38.(amended) A method for identifying lead compounds for a pharmacological agent useful in the treatment of disease associated with P-glycoprotein transporter activity comprising

providing a cell or other membrane-encapsulated space comprising a P-glycoprotein as claimed in claim 14;

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contacting the cell or other membrane-encapsulated space with a candidate pharmacological agent under conditions which, in the absence of the candidate pharmacological agent, cause a first amount of P-glycoprotein transporter activity;

determining a second amount of P-glycoprotein transporter activity as a measure of the effect of the pharmacological agent on the P-glycoprotein transporter activity, wherein a second amount of P-glycoprotein transporter activity which is less than the first amount indicates that the candidate pharmacological agent is a lead compound for a pharmacological agent which reduces P-glycoprotein transporter activity and wherein a second amount of P-glycoprotein transporter activity which is greater than the first amount indicates that the candidate pharmacological agent is a lead compound for a pharmacological agent which increases P-glycoprotein transporter activity.

45.(amended) A method for determining transmembrane transport of a compound by a P-glycoprotein, comprising

a4

contacting the host cell of claim 21, or a membrane fraction thereof, with a test drug, and

measuring transport of the test drug under sink conditions in at least one direction of transport selected from the group consisting of the apical to basolateral direction and the basolateral to apical direction.